

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 82-7

NPDES NO. CA0028207

WASTE DISCHARGE REQUIREMENTS FOR:

CONTRA COSTA COUNTY WATER DISTRICT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Contra Costa County Water District, hereinafter called the discharger, by application dated January 21, 1982 has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.
2. The discharger proposes to withdraw approximately 15.8 million gallons per day (mgd) of treated effluent from Central Contra Costa Sanitary District's advanced treatment plant for the purpose of wastewater reclamation for industrial use. The discharger will provide additional treatment consisting of softening using the sodium exchange process and will discharge approximately 0.75 mgd of brine wastewater containing pollutants into the Sanitary District's deepwater outfall for discharge into Suisun Bay, a water of the United States, at a point approximately 1,500 feet offshore and 2,500 feet west of the Avon Dock (Latitude 38 deg., 00 min., 41 sec., longitude 122 deg., 04 min., 18 sec.).

Upon completion of the proposed project, the Water District will supply about 15 mgd peak demand of reclaimed domestic wastewater to six industrial customers, located between Martinez and Port Chicago, for use as industrial cooling water.

3. The Board in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for Suisun Bay.
4. The beneficial uses of Suisun Bay and contiguous water bodies are:
 - a. Recreation
 - b. Esthetic enjoyment
 - c. Preservation and enhancement of fish, shellfish, wildlife, and other aquatic resources
 - d. Industrial water supply
 - e. Navigation
 - f. Seasonal source of domestic water supply at Mallard Slough
5. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

5. The Board has notified the discharger and interested agencies and persons of its intent to reissue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
6. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provision of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Effluent Limitations

The following limitations apply to the wastewater as discharged into the combined outfall.

1. The waste shall be limited to brine discharge resulting from the sodium ion exchange process, and no additional pollutants shall be added.
2. The discharge of waste containing constituents in excess of the following limit is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>	<u>Instanta- neous Maximum</u>
Suspended Solids	lbs/day	93.8	187.6	
	mg/l	15	30	
Chlorine Residual*	mg/l			0.0

*Compliance with this limitation may be demonstrated at the point of discharge from the combined outfall to the receiving water.

3. The waste shall not have pH of less than 6.0 nor greater than 9.0.
4. The total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria when verified by a repeat sample taken within 48 hours.
5. In any representative set of samples the waste as discharged shall meet the following limit of quality:

Toxicity: The survival of test fishes in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival for 10 consecutive samples.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved oxygen 7.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l maximum.
 - c. pH Variation from natural ambient pH by more than 0.2 pH units.
 - d. Un-ionized Ammonia 0.025 mg/l Annual Median
as N 0.4 mg/l Maximum
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 77-14, adopted by this Board on February 15, 1977 and are effective upon commencement of discharge.
2. The discharger shall comply with all Prohibitions, Effluent and Receiving Water Limitations, and Provisions upon commencement of discharge from the new treatment facilities.
3. The discharger shall comply with the Self-Monitoring Reporting Program as ordered by the Executive Officer.
4. The discharger shall comply with all items except A.5 and A.12 of the attached "Standard Provisions and Reporting Requirements" dated April 1977.
5. This Order expires March 17, 1987. The discharger must file a Report of Waste Discharge not later than 180 days in advance of such date as an application for issuance of new waste discharge requirements.
6. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator of the U. S. Environmental Protection Agency has no objections.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 17, 1982.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements 4/77
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

Contra Costa County Water District

Contra Costa County

Concord

NPDES No. CA 0028207

ORDER NO. 82-7

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge into the sanitary districts outfall and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

B. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in Suisun Bay, located within 25 feet of the point of discharge from the outfall diffuser section.
C-2	At a point in Suisun Bay, located 100 feet generally west from the diffuser section of the outfall line.
C-3	At a point in Suisun Bay, located 100 feet generally north from the offshore end of the diffuser section of the outfall line.
C-4	At a point in Suisun Bay, located 100 feet generally east from the diffuser section of the outfall line.
C-5	At a point in Suisun Bay, located 100 feet generally south from the shoreward end of the diffuser section of the outfall line.
C-R	At a point in Suisun Bay, located 1,000 feet up current from the diffuser section of the outfall line in waters of the same depth (<u>±</u> 5 feet) as station C-1 and not located in the dredged channel.

II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given as Table I.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No.
2. Does not include the following paragraphs of Part A:

C-5.5, D.1, D.4.
3. Is effective on the date shown below.
4. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table 1 (2 pages)

Effective Date _____

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS 11

[illegible]

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001			E-001-D			All Sta.						
TYPE OF SAMPLE	G	C-24	Cont	G	C-24	Cont	G						
Mercury (mg/l & kg/day)													
Nickel (mg/l & kg/day)													
Zinc (mg/l & kg/day)		3M											
PHENOLIC COMPOUNDS (mg/l & kg/day)													
All Applicable Standard Observations	W						3M						
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)													
Non-dissociated Ammonium hydroxide (mg/l) as N							2M						

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
 C-24 = composite sample - 24-hour
 C-X = composite sample - X hours
 (used when discharge does not
 continue for 24-hour period)
 Cont = continuous sampling
 BS = bottom sediment sample
 O = observation

TYPES OF STATIONS

A = treatment facility influent stations
 E = waste effluent stations
 C = receiving water stations
 P = treatment facilities perimeter stations
 L = basin and/or pond levee stations
 B = bottom sediment stations
 OV = overflows and bypasses

FREQUENCY OF SAMPLING

E = each occurrence	2/H = twice per hour	2H = every 2 hours
H = once each hour	2/W = 2 days per week	2D = every 2 days
D = once each day	5/W = 5 days per week	2W = every 2 weeks
W = once each week	2/M = 2 days per month	3M = every 3 months
M = once each month	2/Y = once in March and once in September	Cont = continuous
Y = once each year		

1/ During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, Total suspended solids, oil and grease (Influent and Effluent)
2. Grab sample for Coliform (Total and Fecal), Settleable matter, and chlorine residual (continuous or every two hours)
3. Continuous monitoring of flow

~~2/ Total Coliform - 5 samples per station~~